

Please replace the paragraph beginning on page 13, line 13 with the following rewritten paragraph:

AZ --The enzymatic reaction is conducted at pH 6.0 to 11, preferably pH 7.0 to 10, and at temperatures of 4°C to 45°C, preferably 20°C to 40°C. Maltose can be used as a substrate in a concentration of less than 50%. The trehalose synthase enzyme can be used in a pure form or in crushed cells.--

Please replace the paragraph beginning on page 16, line 19, with the following rewritten paragraph:

AB --The pure chromosomal DNAs isolated from *Pseudomonas stutzeri* were partially digested with restriction enzyme *Sau3AI* at 37°C for 15 to 30 minutes. The restriction enzyme was inactivated with heat and agarose gel electrophoresis was carried out to obtain 3 to 10 kb DNA fragments. As shown in Figure 5, plasmid pUC18 was digested with *BamHI* and was treated with calf intestinal phosphatase. The cleaved DNAs were mixed with 3 to 10 kb DNA fragments previously obtained and ligation with T4 DNA ligase was allowed at 15°C for 16 hours. The recombinants thus obtained were used for transformation. The transformation was carried out by electroporation as follows. *E coli* NM522 was cultured on LB medium for 14 to 15 hours. The resulting culture was inoculated on 1L LB so that initial absorbency became 0.07 to 0.1 at 600 nm, and then cultivation was allowed until the absorbency reached 0.8. The cells were centrifuged and suspended in 1L of HEPES [N-(2-hydroxyethyl)piperazine-N-(2-ethanesulfonic

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acid)] buffer solution. The cells were again centrifuged and suspended in 500 ml of cold sterile deionized distilled water. The cells were again centrifuged and suspended in 20 ml of 10% glycerol solution. The cells were again centrifuged and suspended in 2 to 3 ml of 10% glycerol solution so that the cell concentration was adjusted to  $2-4 \times 10^{10}/\text{ml}$ . The cell suspension was rapidly frozen and stored at  $-70^{\circ}\text{C}$ . The frozen cells could be used for about one month during which time their transformation frequency did not decrease.  $40\mu\text{L}$  of frozen cell suspension was thawed in ice and the restored suspension was mixed with the ligated DNA solution. The mixture was put in a gene pulser cuvette with a diameter of 0.2 cm and the capacitance and strength of electric field was fixed at 25  $\mu\text{F}$  and 12.5 kV/cm, respectively. After a single electric pulse was passed at resistance of 200 to 400  $\Omega$ , 1 ml of SOC medium was immediately added and cultured at  $37^{\circ}\text{C}$  for 1 hour. The culture was streaked on LB-ampicillin agar medium and cultivation was allowed for 24 hours to obtain at least fifty thousand colonies. These colonies were together cultured in LB broth for 2 hours. DNA was purely isolated using an alkaline lysis and the genomic library was constructed therefrom.--

Please replace the paragraph beginning on page 18, line 22, with the following rewritten paragraph:

AC/ --The plasmid pCJ104 was subjected to single, double, and triple-digest procedures using about twenty restriction enzymes,

such as AatII, BamHI, BglII, SmaI, EcoRI, EcoRV, KpnI, NcoI, NdeI, PstI, SacI, SacII, SalI, SphI and XhoI. DNA fragments were analyzed by electrophoresis through agarose gel and compared to construct the restriction map.--

Please replace the table beginning on page 18, line 5, with the following rewritten table:

--Table 3. Enzyme Titration

Microorganisms	Specific activity of enzyme (U*/mg of protein)	Culture Titer (U/ml of culture solution)
<i>Pseudomonas stutzeri</i> CJ38	0.1	0.023
<i>E. coli</i> ATCC35467/pUC18	0	0
<i>E. coli</i> ATCC35467/pCJ104	0.26	0.175

\*U- $\mu$ mol trehalose/minutes--

Please replace the heading beginning on page 18, line 28, with the following rewritten heading:

--Example 8--